

Amendments to the Drawings

Please replace the drawing sheets containing Figs. 1, 4 and 5 with the replacement drawing sheets appended to this response.

Remarks

Claims 1-60 remain pending in the application and currently stand rejected. Claims 1, 21 and 41 are amended herein. The Assignee respectfully traverses the rejections and requests allowance of claims 1-60.

Title Amendments

The title is amended to correct a grammatical error, so that the title now reads “PROBE DEVICE FOR DETERMINING CHANNEL INFORMATION IN A BROADBAND WIRELESS SYSTEM.”

Specification Amendments

Generally, various paragraphs and a table of the specification have been amended to remove references to customer premises 610 and 620, which do not appear in the drawings. Also, the reference numeral for the market hub/head end of Fig. 1 has been changed from 520 to 501 in order to avoid conflict with the downstream manager 520 of Fig. 5. In addition, references to links 113 and 114 have been replaced with link 116 to correctly correspond with Fig. 1. References to link 124 have been eliminated, as no such link appears in Fig. 1. Also, any references to head end 510 have been removed, as that device does not appear in the drawings. Some language has also been added to the specification to refer to the sectors 161-170, as well as the link 131 coupling the head end 500 with the base antenna 160, as shown in Fig. 1.

Some new paragraphs have been added to the specification to properly refer to various elements of Figs. 3-5 that were previously left unnoted. More specifically, references now appear in the specification to the regional domain name server (DNS) 365 and its associated link 313 of Fig. 3; the market DNS 465, alarm system 470, interface 475, file transfer protocol (FTP) test server 480, and Remote Monitor (RMON) probe 495, along with associated links 413-415, 419 and 421, of Fig. 4; and the DNS 591, alarm system 592, asynchronous ports 593, interface 594 and monitor system 596, in addition to the channel combiner 536 and corresponding link 562 of Fig. 5.

The paragraph beginning at page 15, line 15, is also amended to eliminate a typographical error involving the word “similar.”

Claim Amendments

Claim 1 is amended to provide that the channel information describes “use of each of a plurality of channels in the broadband wireless system by each of a plurality of users.” Support for the amendment is found in the current application at page 34, lines 21-28, which indicates that “[s]ome examples of channel information are a per-user breakdown of the time in each channel, bytes transmitted in each channel, and protocol types used in each channel.” Claims 21 and 41 are similarly amended.

Drawing Amendments

Fig. 1 is amended to change the reference numeral 520 to 501 to alleviate a conflict with reference numeral 520 in Fig. 5.

Fig. 4 is amended to change the reference numeral associated with the link coupling the interface 475 and the switch 425 from 418 to 415, as reference numeral 418 is employed for the link between the satellite receiver 460 and the contention server 455.

Fig. 5 is amended to change the reference numeral associated with the base antenna from 160 to 540 to properly align with the corresponding language of the specification.

Each of the drawing amendments is reflected in a corresponding replacement drawing sheet attached to this Response.

Claim Rejections for Obviousness-Type Double Patenting

Claims 1-60 stand rejected for non-statutory obviousness-type double patenting over claims 1-54 of U.S. Patent Application No. 09/981,172 (hereinafter “the ‘172 application). More specifically, the Office action indicates that “[a]lthough the conflicting claims are not identical, *they are not patentably distinct from each other because the claims of the instant application are broad enough to be encompassed by the ‘172 application* and as such it would have been obvious to one of ordinary skill in the art to implement the invention of the instant application using the claims of the ‘172 application in order to monitor the performance of the communication system.” (Pages 2 and 3 of the Office action; emphasis supplied.)

The Assignee respectfully traverses the rejection, as the Office action does not state a sufficient legal ground for the rejection. More specifically, even if the claims of one application

are encompassed, or “dominated,” by those of another application, “[d]omination by itself, i.e., in the absence of statutory or nonstatutory double patenting grounds, cannot support a double patenting rejection.” (MPEP § 804(II), citing *In re Kaplan*, 789 F.2d 1574, 1577-78, 229 USPQ 678, 681 (Fed. Cir. 1986); and *In re Sarrett*, 327 F.2d 1005, 1014-15, 140 USPQ 474, 482 (CCPA 1964).)

Thus, in light of the foregoing, the Assignee respectfully requests withdrawal of the double patenting rejection of claims 1-60.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-60 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,411,606 to Moura et al. (hereinafter “Moura”) in view of U.S. Patent No. 6,154,489 to Kleider et al. (herinafter “Kleider”). (Page 3 of the Office action.) The Assignee respectfully traverses the rejection in light of the current amendments to claims 1, 21 and 41, and the following discussion.

Claims 1, 21 and 41

Amended independent claim 1 indicates that the channel information describes use of each of a plurality of channels in the broadband wireless system by each of a plurality of users. Independent claims 21 and 41 incorporate similar provisions. As discussed below, neither Moura nor Kleider teach such channel information.

For example, Moura discusses the receipt of a periodic “heartbeat” message at a Hybridware™ server from a Hybridware™ client of a hybrid access system 1. (Figs. 1 and 7; and column 10, lines 10-13.) Also, “[t]he server software monitors other channel quality parameters including errors and signal to noise ratios.” (Column 10, lines 13-15.) Lack of heartbeat messages received, or poor channel quality parameters, causes the server to attempt to reassign the client to another channel, or to deem the client as non-responsive. (Column 10, lines 15-24.) However, the channel quality information of Moura (i.e., errors and signal-to-noise ratios) is not “channel information describing use of each of a plurality of channels in the broadband wireless system by each of a plurality of users,” as provided for in claims 1, 21 and 41.

Kleider discloses “a method and apparatus which “improves the quality of digitally

transmitted compressed digital imagery over degraded wireless communication links.” (Column 2, lines 15-17.) In a receiver 103, a “[c]hannel status estimator 127 takes performance information from image decoder 121, channel decoder 119 and demodulator 117.” (Fig. 1; and column 7, lines 36-38.) Such performance information includes ““reconstructed peak signal to noise ratio (PSNR) of the image decoder 121, bit error rate out of the channel decoder 119, symbol error rate (SEP) and the signal quality or signal to noise ratio (SMR) out of the demodulator 117.” (Column 7, lines 36-42.) However, none of this information is “channel information describing use of each of a plurality of channels in the broadband wireless system by each of a plurality of users,” as provided for in amended claims 1, 21 and 41.

Thus, the Assignee contends that claims 1, 21 and 41 are allowable in view of any combination of Moura and Kleider, and such indication is respectfully requested.

Claims 2-20, 22-40 and 42-60

Claims 2-20 depend from independent claim 1, claims 22-40 depend from independent claim 21, and claims 42-60 depend from independent claim 41, thus incorporating the provisions of their respective independent claims. Therefore, the Assignee asserts that claims 2-20, 22-20 and 42-60 are allowable for at least the reasons provided above with respect to claims 1, 21 and 41, and such indication is respectfully requested.

Given the foregoing discussion, the Assignee respectfully requests that the rejections of claims 1-60 be withdrawn.

Conclusion

Based on the above remarks, the Assignee submits that claims 1-60 are allowable. Additional reasons in support of patentability exist, but such reasons are omitted in the interests of clarity and brevity. The Assignee thus respectfully requests allowance of claims 1-60.

The Assignee believes no additional fees are due with respect to this filing. However, should the Office determine additional fees are necessary, the Office is hereby authorized to charge Deposit Account No. 21-0765.

Respectfully submitted,

Date: 5/11/06



SIGNATURE OF PRACTITIONER

Kyle J. Way, Reg. No. 45,549

Setter Ollila LLC

Telephone: (303) 938-9999 ext. 21

Facsimile: (303) 938-9995

Correspondence address:

CUSTOMER NO. 28004

Attn: Harley R. Ball
6391 Sprint Parkway
Mailstop: KSOPHT0101-Z2100
Overland Park, KS 66251-2100